

## **5440-18 Technical Professional Education**

*The holder is authorized to teach one or more technical courses of study in grades 9-12 as specified on the endorsement.*

In order to qualify for this endorsement, a candidate must demonstrate the following:

### Core Knowledge Standards:

**Demonstrates knowledge of planning, delivering, and evaluating instruction based upon knowledge of subject matter, integration of Career and Technical Student Organization standards, Vermont's Career and Technical knowledge and skills competencies, and student, community and workforce needs, including industry standards and procedures<sup>1</sup> for the particular specialization, and Vermont's Framework of Standards and Learning Opportunities. Specifically, the educator understands:**

The role, responsibility, legal, and ethical requirements of the specific area of instruction

Integration and principles of applied academic areas necessary for success in the specific career preparation area

Current and emerging technologies relevant to the specialized curriculum

The career development/planning process and the integration of employability skills into the curriculum

The significant role of partnerships and collaborative relationships with industry, organized labor, parents, agencies, post secondary institutions and the community in delivering the curriculum, and how to form advisory committees

Incorporation of essential entrepreneurial skills into the curriculum

How to foster the development of students' leadership skills through delivery of the curriculum, and incorporation of appropriate career and technical student organization standards into the curriculum

Current local, state, and federal safety regulations

### Core Performance Standards:

**The educator implements a comprehensive, standards-based curriculum that incorporates industry skill standards and enables students to acquire the knowledge, skills, and attitudes that will prepare them to succeed in the chosen career preparation area. Specifically the educator:**

Develops learning opportunities that integrate industry-recognized credentials and incorporate current components of all aspects of industry

Consults with industry advisory committees, colleagues, community, and parents to maximize curricular and instructional resources, and develops work-based learning experiences

Plans, organizes, and manages laboratories/technical facilities for instruction so that activities are carried out in accordance with state and national safety guidelines and in compliance with all local, state and federal regulatory codes governing the industry

Fosters the development of students' leadership, teamwork, and effective communication skills, and teaches deportment in a manner appropriate to the industry

## **5440-18 Technical Professional Education (Cont'd)**

Advises students in the career planning process and teaches foundation employability skills as indicated in the program core competencies developed by industry and education

Prepares students for third-party assessments

### Additional Requirements:

An AA degree or the equivalent

An industry recognized credential offered in the program of instruction

A total of three or more years of recent occupational experience in the area of specialization within one of the following career areas:

- A. Agriculture and Natural Resources
- B. Business and Administration
- C. Health and Human Services

Successful completion of the Mentorship Program for Technical Professional and Trades and Industry educators

**In addition to the core competencies listed above, the instructor will demonstrate proficiency in and meet the following competencies for one or more specialization areas through the required work experience.**

1. Agriculture and Natural Resources
  - a. Agricultural Mechanics – Knowledge of how to safely operate, maintain, and repair agricultural power units, agricultural machinery, and power tools. Knowledge of electricity, motors, and controls. Knowledge of how to safely weld and cut.
  - b. Veterinary Technician – Knowledge of livestock handling, care and management including feeding, breeding, diseases, and training. Knowledge of veterinary office practices and procedures.
  - c. Agribusiness Management Technician – Knowledge how to start and manage a small business. Knowledge of record keeping, budgeting, planning, banking, contracts, and insurance.
  - d. Landscape Development Technician – Knowledge of designing and planning landscape projects. Knowledge of plants and materials used. Knowledge of installation of project plans. Knowledge of how to safely operate and maintain landscape power equipment and tools.
  - e. Ornamental Horticulture Technician – Knowledge of the culture and use of plant materials. Knowledge of the operation and management of a growing facility.
  - f. Animal Science Technician - Knowledge of livestock handling, care and management including feeding, breeding, diseases, and training. Knowledge of the operation of an animal science facility and business.

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- g. Fish and Wildlife Technician – Knowledge of fish and wildlife species, life cycle, care, and habitat management. Knowledge of sport and recreation applications.
  - h. Natural Resource Technician – Knowledge of the ecology and management of ecosystems. Knowledge of the safe use of power equipment and tools.
2. Business and Administration
- a. Keyboarding – Knowledge of, proficiency and ability to teach correct keyboarding techniques to enter and manipulate text and data, and office/business skills to operate the most current and emerging technology and equipment appropriate for handling office operations.
  - b. Health Information Management – Knowledge of, proficiency and ability to teach medical terminology including procedural and diagnostic coding; medical transcription, medical insurance and reimbursement, and overall knowledge of the health information and management field.
  - c. Legal Office Procedures – Knowledge of, proficiency and ability to teach correct office procedures specific to the legal field.
  - d. Computer Technology – Network Administration – Knowledge of, proficiency and ability to teach Network Administration by meeting the competencies as indicated in the Information Technology category of the Trades and Industry Endorsement.
3. Health and Human Services
- a. Dental Assistant – Knowledge of, proficiency, and ability to teach oral hygiene procedures, performance of laboratory tasks, chairside procedures, state regulation governing dental assisting, nutrition as it relates to dental health, dental clerical tasks, dental anatomy knowledge, ability to instruct patients in dental health.
  - b. Physical Therapy Assistant – Knowledge of human anatomy and physiology, including systems (muscular, skeletal, neurological), and ability to teach their relationships and manipulative techniques related to correction procedures.
  - c. Nurse Assistant – Knowledge of, proficiency and ability to teach skills in all areas as prescribed for the state licensing exam and the knowledge and skills needed for performing and recording advanced procedures in an acute care facility.
  - d. Human Services Assistant – Knowledge of human growth and development throughout the lifespan, and proficiency in the health, safety, and welfare issues related to childcare and geriatrics.
  - e. Teacher Assistant – Knowledge of human development and learning theories, proficiency in teaching methodologies, and the monitoring and management of students.

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<sup>1</sup>. *States' Career Cluster Initiative, (2002, National Association of State Directors for Career and Technical Education Consortium)*